# Q1 2018
# Earnings Presentation

Advanced Energy

May 1, 2018

# Safe Harbor

The company’s guidance with respect to anticipated financial results for the second quarter ending June 30, 2018, potential future growth and profitability, our future business mix, expectations regarding future market trends and the company’s future performance within specific markets (e.g., statements regarding anticipated semiconductor and industrial market growth) and other statements herein or made on the above-announced conference call that are not historical information are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties include, but are not limited to: (a) the effects of global macroeconomic conditions upon demand for our products and services; (b) the volatility and cyclicality of the industries the company serves, particularly the semiconductor industry; (c) delays in capital spending by end-users in our served markets; (d) the accuracy of the company’s estimates related to fulfilling solar inverter product warranty and post-warranty obligations; (e) the company’s ability to realize its plan to avoid additional costs after the solar inverter wind-down; (f) the accuracy of the company's assumptions on which its financial statement projections are based; (g) the impact of product price changes, which may result from a variety of factors; (h) the timing of orders received from customers; (i) the company’s ability to realize benefits from cost improvement efforts including avoided costs, restructuring plans and inorganic growth; (j) the company’s ability to obtain in a timely manner the materials necessary to manufacture its products; (k) unanticipated changes to management's estimates, reserves or allowances; and (l) changes and adjustments to the tax expense and benefits related to the recently enacted U.S. tax reform. These and other risks are described in Advanced Energy's Form 10-K, Forms 10-Q and other reports and statements filed with the Securities and Exchange Commission (the “SEC”). These reports and statements are available on the SEC's website at www.sec.gov. Copies may also be obtained from Advanced Energy's investor relations page at http://ir.advanced-energy.com or by contacting Advanced Energy's investor relations at 970-407-6555. Forward-looking statements are made and based on information available to the company on the date of this presentation. Aspirational goals and targets discussed on the conference call or in the presentation materials should not be interpreted in any respect as guidance. The company assumes no obligation to update the information in this presentation.

# Non-GAAP Measures

This presentation includes GAAP and non-GAAP income and per-share earnings data and other GAAP and non-GAAP financial information. Advanced Energy's non-GAAP measures exclude the impact of non-cash related charges such as stock-based compensation and amortization of intangible assets, as well as non-recurring items such as acquisition-related costs. Additionally, the first quarter non-GAAP results exclude estimated income tax expense associated with U.S. tax reform. For the second quarter ending June 30, 2018 guidance, the company expects stock based compensation of $2.7 million and amortization of intangibles of $1.4 million. The non-GAAP measures included in this presentation are not in accordance with, or an alternative for, similar measures calculated under generally accepted accounting principles and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. Advanced Energy believes that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges and other charges which are not part of the company's usual operations. The company uses these non-GAAP measures to assess performance against business objectives, make business decisions, develop budgets, forecast future periods, assess trends and evaluate financial impacts of various scenarios. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. Additionally, the company believes that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. While some of the excluded items may be incurred and reflected in the company's GAAP financial results in the foreseeable future, the company believes that the items excluded from certain non-GAAP measures do not accurately reflect the underlying performance of its continuing operations for the period in which they are incurred. The use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with the company's results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate the company's results of operations in conjunction with the corresponding GAAP measures. Please refer to the Form 8-K regarding this presentation furnished today to the Securities and Exchange Commission.

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Advanced Energy

Yuval Wasserman
President & CEO

# Highlights

- Revenue of $195.6M; +31.0% y/y
  - Continued demand for AE's high-performance power solutions
  - Surge in Industrial business
  - Solid execution of growth strategy
- Non-GAAP* EPS from continuing ops $1.34; +28.8% y/y
- Key Initiatives
  - Completed acquisition of Trek, second acquisition in 9 months
  - Deployed $28.5 million in share repurchase YTD
  - Hired Paul Oldham as new CFO

**Non-GAAP measures exclude the impact of non-cash related charges such as stock based compensation, amortization of intangible assets, estimated income tax expenses associated with U.S. tax reform, and restructuring costs, as well as acquisition related costs and other non-recurring items.*

# Semiconductor Highlights

- Semiconductor revenue of $136.0M, +10.1% q/q and +30.0% y/y
  - Reached record level
  - AE’s highly engineered, precision power solutions are critical for new processing tools
- Multiple demand drivers
  - Demand heavily driven by etch, 3D NAND
  - Strong DRAM investment drove needs for front end processing tools
  - Next-gen Logic devices contributed, migration towards sub 10nm nodes
  - Strength at key OEM’s from leading edge capacity as well as 200mm

# Semiconductor Design Wins

- Primarily from advanced NAND and DRAM applications
  - Technology leadership outpaced the competition
    - Advanced etch application, particularly dual frequency matching products
- Successfully displaced multiple competitors
  - Due to design philosophy, easy integration, best-in-class performance
  - Enabled demanding plasma processes, requiring high speed and advanced dynamic control capability
- Acquisition of Trek increased AE’s presence in high voltage market for semi applications
  - Increased content in metrology & ion implantation for advanced Logic and DRAM applications
- Enabling new capabilities, pursuing future technology nodes
  - eV Source technology, solid state match, and new remote plasma source

# Semiconductor Outlook

- Q2’18 Semiconductor revenues to remain at or near the Q1’18 record level
  - Continued growth in 3D NAND and DRAM
  - Demand for increased content in consumer devices and enterprise infrastructure
    - Cloud edge high-performance computing
    - Artificial intelligence
    - Internet of Things (IoTs)

# Industrial Highlights

- Total Industrial revenue of $35.2M; +15.0% q/q and +45.6% y/y
  - 3 year CAGR of 17%

**Thin Film Industrial**

- Rapid adoption of advanced technology for Industrial markets
  - Introduced Ascent DMS advanced bipolar pulsed power technology in 2015
    - Now, DMS bipolar pulsed DC business has quadrupled year-over-year
    - Contributed half of AE’s successful design wins in high power AC solutions in Q1
    - Adoption throughout TFI market: consumer electronics, advanced displays, solar PV cell manufacturing, large area glass markets
- Leading-edge technology enables design wins, upholding AE’s market leading margins

# Industrial Highlights (cont.)

## Specialty Industrial Power

- Significant improvement during the quarter
  - Expansion of portfolio into a variety of new and adjacent markets
- High voltage power solutions
  - Provide stable output with low noise and low ripple in a small form factor
  - Critical in the materials, lasers, robotics, medical, and life sciences markets
- Low voltage customized power solutions
  - Grow AE's presence in highly-regulated markets
  - AE's modular, high power density, and fan-less solutions have become the standard for many served markets
- Increased channel partnerships, diversification, accelerated innovation and differentiated products enabling penetration of new verticles

# Industrial Design Wins

## Thin Film Industrial

- Advanced glass coating applications
  - Gained share in Europe and the U.S.
- Consumer electronics coating
  - Increased activity to support customers' ramps, broaden AE's presence to new users
- Flat Panel Display
  - Expanded presence in China
  - Increased capacity as ramp of mobile OLED continues
- Solar PV cell applications
  - Continued upgrades and new purchases

# Industrial Design Wins (cont.)

## Specialty Power

- High voltage products
  - Gained share, displaced competitors
  - Secured wins for an electrostatic precipitator application and a laser marking of flat panel display project for traceability
- Thermal
  - Expanded PCM market presence, won additional glass line projects in Europe & Asia
- Materials processing
  - Furnace heating project for steel
- Low Voltage
  - Medical laser equipment market

# Industrial Outlook

- Expand AE’s reach into new and adjacent verticals
  - Add complementary application, technologies and product line
- Q2’18 ongoing strength in Industrial business
  - Similar growth across thin film and specialty power applications
    - Especially consumer electronic products coating, mobile OLED, and high voltage products
- Expect to increase CAGR target from GDP+ to mid-teens

# Service Highlights and Outlook

- Service revenue of $24.4M; -2.5% q/q and +18.9% y/y
  - Timing of refurbishment upgrade and retrofit projects
- Opened new Singapore repair center
  - Greater regional flexibility
  - Respond to an increase in activity by customers and OEMs across Asia
- Outlook for Q2 2018
  - Ongoing momentum in market adoption, Non-break Fix service products
  - Service revenue growth, high-single digits sequentially
  - Expect double digit CAGR growth

# Summary

- Driving technical synergies across various product lines
- Integration of multiple products into enabling solutions
- Ongoing commitment to continuous innovation
- Progress towards 3-year aspirational goals
  - Revenue >$1B, non-GAAP EPS of $5.50-$6.50, cumulative cash generation >$550 million.

# Q1 2018
# Earnings Presentation

**Tom McGimpsey**

EVP, Interim CFO & General Counsel

# Q1 2018 Financial Highlights

- Delivered record top and bottom lines
  - Grew organically and inorganically
- Total revenue $195.6M; +9.2% q/q and +31.0% y/y
- GAAP EPS from continuing operations $1.16
- Non-GAAP* EPS from continuing operations $1.34
- Non-GAAP* operating margin from continuing operations 32.0%

**Non-GAAP measures exclude the impact of non-cash related charges such as stock based compensation, amortization of intangible assets, estimated income tax expenses associated with U.S. tax reform, and restructuring costs, as well as acquisition related costs and other non-recurring items.*

# Q1 2018 Revenue by Application

| | Q1 2018 | | Q4 2017 | | Q1 2017 | |
|---|---|---|---|---|---|---|
| *(in thousands)* | **Actual** | **% of Sales** | **Actual** | **% of Sales** | **Actual** | **% of Sales** |
| Semiconductors | $ 136,010 | 69.5 % | $ 123,565 | 68.9% | $ 104,648 | 70.1 % |
| Industrial | 35,199 | 18.0 % | 30,607 | 17.1% | 24,179 | 16.2 % |
| Service | 24,408 | 12.5 % | 25,042 | 14.0% | 20,524 | 13.7 % |
| **Total Revenue** | $195,617 | | **$179,214** | | **$149,351** | |

# Q1 2018 Income Statement

| *($ in Millions, except percentage & EPS)* | Q1'18 | Q4'17 | Q1'17 |
|---|---|---|---|
| Revenue | $195.6 | $179.2 | $149.4 |
| GAAP operating expenses | $47.5 | $40.1 | $35.6 |
| GAAP operating margin from continuing ops % | 28.7% | 32.4%** | 29.0% |
| GAAP earnings (loss) from continuing ops | $1.16 | ($0.73) | $0.88 |
| Non-GAAP* operating margin from continuing ops % | 32.0% | 34.1%** | 31.9% |
| Non-GAAP* EPS from continuing ops | $1.34 | $1.31*** | $1.04 |

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***Q4'17 GAAP and non-GAAP operating margins were positively affected by lower warranty costs and incentive pay.*
****Q4'17 non-GAAP EPS benefitted by $0.03 from the lower warranty costs and incentive pay.*

# Q1 2018 Balance Sheet

- Generated $34.9M in cash from continuing operations
  - Invested $23 million in net working capital
- $12.8M share repurchase in Q1'18
  - Repurchased $28.5 million shares YTD

| *($ in Millions)* | **Q1'18** | **Q4'17** |
|---|---|---|
| Cash & Investments | $417.1 | $410.4 |
| Accounts Receivable | $116.9 | $87.4 |
| Inventory | $96.8 | $78.5 |
| Total Assets | $813.7 | $733.3 |
| Liabilities | $236.5 | $212.7 |
| Shareholders' Equity | $577.2 | $520.6 |

# Q2 2018 Guidance*

| | Q2 2018 | | |
|---|---|---|---|
| Revenue | $193M | - | $207M |
| GAAP operating margins from continuing operations | 29.0% | - | 31.0% |
| GAAP EPS from continuing operations | $1.23 | - | $1.33 |
| Non-GAAP** operating margins from continuing operations | 31.0% | - | 33.0% |
| Non-GAAP** EPS from continuing operations | $1.30 | - | $1.40 |

**Estimates as of Q1'18 earnings conference call. The company assumes no obligation to update guidance.*
***Q2'18 non-GAAP measures exclude the impact of stock based compensation of $2.7M, amortization of intangibles of $1.4M, restructuring costs, and significant non-recurring items.*

# Reconciliation of Q2 2018 Guidance*

| | Low End | | High End |
|---|---|---|---|
| **Revenues** | **$193M** | **-** | **$207M** |
| **Reconciliation of Non-GAAP** operating margin** | | | |
| GAAP operating margin | 29.0% | - | 31.0% |
| Stock-based compensation | 1.3% | - | 1.3% |
| Amortization of intangible assets | 0.7% | | 0.7% |
| **Non-GAAP** operating margin** | **31.0%** | **-** | **33.0%** |
| **Reconciliation of Non-GAAP** earnings per share** | | | |
| GAAP earnings per share | $1.23 | - | $1.33 |
| Stock-based compensation | 0.05 | - | 0.05 |
| Amortization of intangible assets | 0.04 | - | 0.04 |
| Tax effects of excluded items | (0.02) | | (0.02) |
| **Non-GAAP** earnings per share** | $1.30 | - | $1.40 |

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***Q2'18 non-GAAP measures exclude the impact of stock based compensation of $2.7M, amortization of intangibles of $1.4M, restructuring costs, and significant non-recurring items.*